LMITCO FORM
PROC-1830
01/99

STORES STOCK AND SYSTEMS SUBCONTRACTING ITEMS EXEMPTION JUSTIFICATION

System Subcontract Number: Stores Stock
Exempt Item Stock Number : 11-00004, 11-00003, 11-00006, 11-00113
Exempt Item ANTIFREEZE

Exempt Item Product Code: 9109

PERFORMANCE, PRICE, AVAILABILITY OR COMPETITION JUSTIFICATION
Performance: LMITCO Transportation Department uses propylene glycol in buses and vehicles and extends the life of thousands of gallons of antifreeze with an additive mixture (see attachment). Using reclaimed propylene glycol is not conducive to this process.
Price:
Competition: Poor to non-existent at present time.
Availability: Of the various vendors listed by GSA, none supplied distilled propylene glycol. Three vendors were listed as supplying distilled propylene glycol; however, these vendors only supplied the equipment to distill the glycol.

Procurement Michelle West Date 11/2/98

Antifreeze - ALL Stores Stock for Fleet Management

Darnell and I met with Kirt Bullock and Brent Schofield Wednesday to discuss the use of antifreeze in INEEL buses, trucks, and cars. Transportation is switching all antifreeze to propylene glycol. Buses are initially filled with new propylene glycol, Complete by Fleetguard. During maintenance inspections, the antifreeze is checked and periodically Fleetguard ES (Extended Service) Liquid is added to extend the life of the antifreeze throughout the lifetime use of the bus. Trucks and cars are run for 100,000 miles and excessed with no change of antifreeze. Less than 300 gallons of new propylene glycol is purchased each year mainly to replace antifreeze from leaks or spills.

I called Fleetguard and talked to two Technical Service employees on Wednesday and Thursday, 6-24 and 6-25-98, regarding propylene glycol and additives. The employees were Roger Sells (931-528-9441) and Gary Spires. Gary seemed the most knowledgeable and formally lived in Pocatello. Fleetguard ES Liquid is the proper additive for new propylene glycol as presently used in the Transportation Shop.

Recycled propylene glycol is a different story. First, Fleetguard recommends only the use of glycol that is reclaimed through vacuum distillation, reverse osmosis, or ion exchange methods. Do not use mere filtration since most of the solids remain in the solution. Of course, vacuum distillation is more expensive and a typical machine generates about 15 gallons of antifreeze in a 24 hour period. Price of recycled propylene glycol can vary drastically depending on supply/demand. They told me that Arnold Machinery in Idaho Falls was a distributor of recycled propylene glycol, but that is not correct. They also mentioned a Salt Lake firm which had a history of problems with recycled propylene glycol. Salt Lake tried to increase production above 15gal/hr and quality went down.

After vacuum distillation, the resulting product is essentially virgin propylene glycol and water. Additives must be added to this virgin product that includes buffering compounds, defoamers, etc., to bring it to a 50-50 mix. This can be tough to do, precisely. Fleetguard sells a 'Base Booster' package to bring the product to spec. Afterwards, the ES Liquid can be added periodically to extend the life of the antifreeze. It was implied that this mixing would be performed on site by Transportation, and testing would be appropriate to determine the correct mix.

I believe availability, price, competition, and performance are issues of real concern. The short history of this industry (recycled propylene glycol) does not encourage any kind of consumer confidence. In my opinion, a lot more historical data is necessary before this process change is imposed upon Transportation. The present policy of using propylene glycol and extending the life of antifreeze is a good P2/WasteMin practice and should continue and be credited. I can check further into price and availability, but questionable performance seems to be the issue that would exempt this process at this time.

6/25/98